



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/516,866

12/03/2004

Andreas Witzel

P17157US1

2414

27045 7590  
ERICSSON INC.  
6300 LEGACY DRIVE  
M/S EVR 1-C-11  
PLANO, TX 75024

11/19/2007

EXAMINER

KARIKARI, KWASI

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

11/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/516,866	WITZEL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kwasi Karikari	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Response to Arguments

1. Applicant's arguments filed 09/05/2007 have been fully considered but they are not persuasive.

a. In the remarks, the Applicant argues that Ejzak lacks the limitations of; ["determining if a switching node (not system) operates in a layered or non-layered environment based on the determination of the protocol of a request."] (in claim 1).

However, the Examiner disagrees with such an assertion. See below for further clarification.

Ejzak teaches "determining if a switching node operates in a layered or non-layered environment based on the determination of the protocol of a request" (see Pars. 0004-13 and Figs. 4 and 5; steps 401, 403, 408, 409, and 420).

In view of the above, the rejections using Ejzak are proper and maintained as set forth below. These rejections are made FINAL

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Art Unit: 2617

**Claims 1-17,19 and 20 are rejected under U.S.C. 102(e) as being anticipated by Ejzak (20030027569 A1), (hereinafter Ejzak).**

**Regarding claim 1**, Method for operating a switching node (= iMSC in 151 interworking with IMS141, Pars. [0008, 0029, 0046-47 and 0057] and Fig. 1) of a communications network comprising the steps of:

receiving a communication service request; processing the requested communications service;(= UE 111 initiates mobile call, see Fig. 5 steps 501 and 502; IMS 141 supports services for mobile units using either circuit-switched or IP Multimedia call control procedures, see Par. 0008);

determining an operation mode of the switching node by identifying a protocol associated with the communications service request wherein the determined operation mode indicates whether the switching node is operative for the processing of the requested communication service part of a layered architectural environment (= IP system, see Par. 0020, 0022 and 0025) providing a user plane layer for user data and a control plane layer for signaling data (= determination for the system to serve as traditional MSC or iMSC server, see Par. [0012, 0095-97] and Fig. 4, steps 403 and 404) , or

part of a non-layered architectural environment (= circuit switch domain, see Pars. 0020, 0022 and 0046) not providing a split between a user plane and a control plane (= serving system acts as iMSC or MSC server, see Par. [0021, 0094-95, 0101] and Fig. 4, step 408), and wherein the processing of the requested communications

Art Unit: 2617

service comprises the operating of the switching node in the determined operation mode ( see Pars. [0013, 0052-54, 0079 and 00996-98]) .

**Regarding claim 2**, as recited in claim 1, Ejzak discloses the method, wherein the communications service request is a call set-up request (see Pars. [0104-07]).

**Regarding claim 3**, as recited in claim 1, Ejzak discloses the method, wherein the operation mode is determined according to at least one predetermined rule, which is set-up according to available network capabilities (SIP for IMS internet-like functionality and services, see Pars. [0020-21 and 0028], whereby the protocol is associated with "predetermined rule").

**Regarding claim 4**, as recited in claim 1, Ejzak discloses the method, wherein a plurality of incoming routes (signaling link and signaling and data links) from an access network (RAN 121) to the switching node are provided, at least one predetermined rule comprises an assignment of a dedicated incoming route (signaling link) to an operation mode of the switching node, and wherein the step of determining the operation mode comprises a determination of an incoming route of the communication service request and a comparison of the determined incoming route against at least one predetermined rule (see Par. [0034-35]).

**Regarding claim 5**, as recited in claim 1, Ejzak discloses the method, wherein at least one predetermined rule comprises an assignment of a dedicated access technology to an operation mode, said dedicated access technology provided by an access network for serving a subscriber terminal (UE 111) of a communication system comprising the switching node, and wherein the step of determining the operation mode comprises the determination of the access technology used by the subscriber terminal and comparison of the determined access technology against at least one predetermined rule (communication system; 3G CDMA , see Pars. [0020 and 0024]).

**Regarding claim 6**, as recited in claim 1, Ejzak discloses the method, wherein the communication service request comprises an identifier of a communications service terminating party, at least one predetermined rule comprises an assignment of the identifier to a dedicated operation mode, and wherein the step of determining the operation mode comprises a determination of the identifier and a comparison of the determined identifier against at least one predetermined rule (SIP signaling between two 3GPP UE 111, see Pars. [0080 and 0108], whereby the 3GPP is associated with the "identifier ").

**Regarding claim 7**, as recited in claim 1, Ejzak discloses the method, wherein at least one predetermined rule indicates by means of a statistical distribution factor a distribution, for how many received communications service requests the switching node shall operate as a switching node of the layered architectural environment or as a

switching node of the non-layered architectural environment, and wherein the determined operation mode depends on the statistical distribution factor (see Pars. [0038, 0052 and 0055]).

**Regarding claim 8**, as recited in claim 1, Ejzak discloses the method, wherein the determination of the operation mode comprises a determination of a current load level of the switching node in at least one operation mode, and wherein the determined operation mode for the processing of the requested communications service depends on the determined load level (see Par. [0037]).

**Regarding claim 9**, as recited in claim 1, Ejzak discloses the method, wherein the communication service request requests a subscriber terminal terminating communications service, wherein at least one predetermined rule comprises an assignment of an access technology available to the subscriber terminal to a dedicated operation mode, and wherein the step of determining the operation mode comprises the determination of the access technology available to the terminating subscriber terminal, and the determined operation mode depends on the determined access technology (see Pars. [CDMA and 3GPP, see [0020 and 0080]).

**Regarding claim 10**, as recited in claim 1, Ejzak discloses the method, wherein the switching node processes the requested communications service as a MSC/VLR, if the

Art Unit: 2617

determined operation mode indicates that the switching node is part of the non-layered architectural environment (see Par. [0012-13 and 0095-96]).

**Regarding claim 11**, as recited in claim 1, Ejzak discloses the method, wherein the switching node processes the requested communications service as a MSC-server, if the determined operation mode indicates that the switching node is part of the layered architectural environment (iMSC server, see Pars. [0095-97] and Fig. 4, step 408).

**Regarding claim 12**, as recited in claim 1, Ejzak discloses the method, wherein the determination of the operation mode comprises a determination of at least one of a group of an origin of the communications service request and a destination of the communications service request, and wherein the determined operation mode depends on the at least one determined member of the group (see Pars. [0089-91]).

**Regarding claim 13**, as recited in claim 1, Ejzak discloses the method, wherein the switching node is determined operatively to process the requested communication service as part of the non-layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is local to the switching node (see Pars. 0089-91 and 0103).



Art Unit: 2617

**Regarding claim 14**, as recited in claim 1, Ejzak discloses the method, wherein the switching node is determined operatively to process the requested communication service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is remote to the switching node (see Pars. 0089-91 and 0103).

**Regarding claim 15**, as recited in claim 14, Ejzak discloses the method, wherein the switching node applies local switching, if an origin of the communications service request, in particular an originating radio network node, is local to the destination indicated by the communications service request (see Par. [0081]).

**Regarding claim 16**, as recited in claim 1, Ejzak discloses the method, wherein the switching node is determined operatively to process the requested communication service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is remote to the switching node, and a destination indicated by the communications service request is local to the switching node (service base on location, see Par. [0081]).

**Regarding claim 17**, as recited in claim 1, Ejzak discloses the method, wherein the switching node is determined operatively to process the requested communication

Art Unit: 2617

service as part of the layered architectural environment, if an origin of the communications service request, in particular an originating radio network node, is local to the switching node, and a destination indicated by the communications service request is remote to the switching node (see Par. [0079-81]).

**Regarding claim 19**, Ejzak discloses a network node, in particular a combined MSC/VLR (tradition MSC) and MSC-server (MSC server or iMSC server interconnected with IMS 141) (see Par. [0012-13] and Fig. 1, comprising:

- an access network interface for the user plane (interface between 111 and RAN 121, see Fig. 1);

- an access network interface for the control plane (see Pars. [0025 and 0030]),

- a core network interface for the user plane (see Pars. [0030-32]),

- a core network interface for the control plane, a media gateway interface (see Pars. [0030, 0036 and 0047-48]),

- a media gateway operation unit connected to the user plane interfaces adapted to provide media gateway functions (see Pars. [0025 and 0030 and 0036]),

- a MSC-server operation unit connected to the control plane interfaces and to the media gateway interface, the MSC-server operation unit adapted to provide Msc-server functionality (MSC server 152, and iMSC 201),

- a selection unit adapted to determine for a communication service request (call set up, see Figs. 4 and 5), an operation mode for a processing of the requested communication service by identifying a protocol associated with the communications

service request, wherein the determined operation mode indicates whether the network node is operatively for the processing of the requested communication service part of a layered architectural environment providing a user plane layer for user data and a control plane layer for signaling data (determination for the system to serve as traditional MSC or iMSC server, see Par. [0012, 0095-96] and Fig. 4, steps 403 and 404), or operatively part of a non-layered architectural environment not providing a split between a user plane and a control plane and a processor connected to the interfaces and units of the switching node, said processor being adapted to process a requested communications service in accordance with a determined operation mode of the network node (see Par. [0096-0100] and Fig. 4, steps 408 and 420).

**Regarding claim 20**, as recited in claim 19, Ejzak discloses the node comprising means for storing (HSS 142), in particular a lookup table, network node identifiers and related indications, indicating whether the identified network nodes are local or remote to the network node (see Pars. [0048-52]).

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Kauhanen (U.S. 20030157935)** teaches an intersystem handover with modified parameter.

**Bharatia (U.S 6,763,233)** teaches terminal roaming operations between intergenerational wireless networks.

4. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

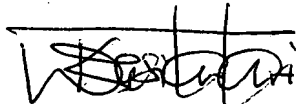
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8566. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


Art Unit: 2617

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



Kwasi Karikari  
Patent Examiner.  
11/11/2007



Rafael Perez-Gutierrez  
Supervisory Patent Examiner  
Technology Center 2600  
Art Unit 2617

11/12/07